

Listing of Claims:

1. (Previously presented) A device comprising:
 - a battery power source;
 - a radio transceiver powered by the battery and having components for transmission and receipt of data;
 - a memory having instructions stored thereon, the instructions including a plurality of power management algorithms; and
 - a controller coupled to the transceiver and to the memory and configured execute the instructions so as to
 - create, via the transceiver, wireless connections with remote devices in any of a plurality of connection configurations,
 - detect the presence, in a wireless transmission from a remote device, of one or more parameters identifying one of the plurality of configurations, and
 - implement, based on the configuration identified, one of the plurality of power management algorithms.
2. (Original) The device of claim 1, wherein the controller is configured to detect the presence of one or more parameters by determining if a wireless connection with the remote device has at least one parameter corresponding to an acceptably fast re-connection procedure.
3. (Previously presented) The device of claim 2, wherein the controller is configured to:
 - implement, upon determining the presence of the at least one parameter, a power management algorithm of the plurality in which the transceiver is deactivated after a first period of device inactivity, and
 - implement, upon determining the absence of the at least one parameter, a power management algorithm of the plurality in which the transceiver is deactivated after a second period of device inactivity, the second period being longer than the first period.

4. (Original) The device of claim 3, wherein the controller is configured such that the device is inactive if the device is not being used to generate or transmit data based on input from a human user of the device.
5. (Original) The device of claim 1, wherein the controller is further configured detect the presence of one or more parameters at the time of establishing a wireless connection with a remote device.
6. (Original) The device of claim 1, wherein the plurality of power management algorithms comprises three or more power management algorithms.
7. (Original) The device of claim 1, wherein the device is a computer input device.
8. (Original) The device of claim 7, wherein the device is a computer mouse.
9. (Original) The device of claim 7, wherein the device is a computer keyboard.
10. (Original) A method for automatically selecting a power management algorithm in a battery-powered wireless device capable of creating wireless connections with a remote device in any of a plurality of connection configurations, comprising:
 - establishing a wireless connection with a remote device;
 - determining wireless communication features supported by the remote device;
 - implementing a first power management algorithm if the remote device supports a first communication feature; and
 - implementing a second power management algorithm if the remote device does not support the first feature.
11. (Original) The method of claim 10, wherein the first communication feature comprises support for an acceptably fast re-connection procedure.

12. (Original) The method of claim 11, wherein:
the first power management algorithm comprises deactivating a transceiver after a first period of wireless device inactivity, and
the second power management algorithm comprises deactivating the transceiver after a second period of wireless device inactivity, the second period being longer than the first period.
13. (Original) The method of claim 12, wherein the wireless device is inactive if the wireless device is not being used to generate or transmit data based on input from a human user.
14. (Original) The method of claim 10, further comprising:
implementing a third power management algorithm if the remote device does not support the first feature but supports a second feature.
15. (Original) The method of claim 10, wherein said determining wireless communication features comprises determining wireless communication features at the time of establishing a wireless connection with a remote device.
16. (Original) A machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a processor, cause the processor to perform steps comprising:
establishing, from a battery-powered wireless device capable of creating wireless connections with a remote device in any of a plurality of connection configurations, a wireless connection with a remote device;
determining wireless communication features supported by the remote device;
implementing a first power management algorithm if the remote device supports a first communication feature; and

implementing a second power management algorithm if the remote device does not support the first feature.

17. (Original) The machine-readable medium of claim 16, wherein the first communication feature comprises support for an acceptably fast re-connection procedure.

18. (Original) The machine-readable medium of claim 17, wherein:

the first power management algorithm comprises deactivating a transceiver after a first period of wireless device inactivity, and

the second power management algorithm comprises deactivating the transceiver after a second period of wireless device inactivity, the second period being longer than the first period.

19. (Original) The machine-readable medium of claim 18, wherein the wireless device is inactive if the wireless device is not being used to generate or transmit data based on input from a human user.

20. (Original) The machine-readable medium of claim 16, comprising further sequences of instructions which cause the processor to perform steps comprising:

implementing a third power management algorithm if the remote device does not support the first feature but supports a second feature.

21. (Original) The machine-readable medium of claim 16, wherein said determining wireless communication features comprises determining wireless communication features at the time of establishing a wireless connection with a remote device.

22. (Previously presented) A computer input device comprising:
a battery power source;

a radio transceiver powered by the battery and having components for transmission and receipt of data; and

a controller coupled to the transceiver, wherein the computer input device is configured to

establish a wireless connection with a remote device,
determine wireless communication features supported by the remote device,
implement a first power management algorithm if the remote device supports a first communication feature, and

implement a second power management algorithm if the remote device does not support the first feature.

23. (Previously presented) The computer input device of claim 22, wherein the first communication feature comprises establishing a re-connection in a reduced amount of time.

24. (New) The device of claim 1, wherein

the plurality of power management algorithms includes first and second algorithms,

each of the first and second algorithms defines multiple device states, each of the device states defining a rate at which the device communicates with a remote device and a rate at which user input components of the device are operated,

the first algorithm defines a transition between two of the device states of that algorithm based on an absence of user input within a first predetermined time period, and

the second algorithm defines a transition between two of the device states of that algorithm based on an absence of user input within a second predetermined time period, wherein and the second time period is different from the first time period.

25. (New) The device of claim 24, wherein

the first algorithm defines active, idle and extended idle states,

the first algorithm defines transition from the active state to the idle state upon an absence of user input for the first time period and a transition from the idle state to the extended idle state upon an absence of user input for a third time period, wherein the third time period is longer than the first time period,

the active state defines a first rate of communication with a remote device and a first rate of user input component operation,

the idle state defines a second rate of communication with a remote device and a second rate of user input component operation, the second rate of communication being slower than the first rate of communication and the second rate of user input component operation being slower than the first rate of user input component operation,

the extended idle state defines a zero rate of communication with a remote device and a third rate of user input component operation, the third rate of user input component operation being slower than the first rate of user input component operation,

the second algorithm also defines the active, idle and extended idle states, and

the second algorithm defines transition from the active state to the idle state upon an absence of user input for the second time period and a transition from the idle state to the extended idle state upon an absence of user input for a fourth time period, wherein the fourth time period is longer than the second time period.

26. (New) The device of claim 25, wherein

the device is a computer mouse, and

the user input device component operation rates are rates at which a light source and an imaging array are activated.